CLASSIFICATION CONFIDENTIAL/SECURITY INFORMATION 50X1-HUM

CENTRAL INTELLIGENCE AGENCY

REPORT

INFORMATION REPORT

COUNTRY Latvia

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SUBJECT Adjustable Axles/Tasmare Ship Repair Yards

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1. A difference of 3.504 inches in the gauge of railroad tracks in Western Europe and the Soviet area created the problem of making axle adjustments. Soviet tracks had a gauge of 1324 mm whereas Western European tracks had a gauge of 1435 mm. This difference necessitated an adjustment of 1.752 inches per wheel. (Fig 1).

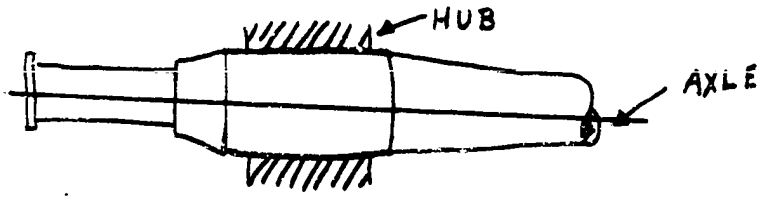

Fig 1.

2. The Railroad Administration of Latvia had technical standards for wheel and axle sets which showed the minimum pressure between axle and hub. When the pressure between the hub and the axle became too low, the wheel had to be removed. The inside of the hub hole had to be welded electrically and turned out on a right interval diameter (Fig 2). A wheel so prepared was then ready for assembly.

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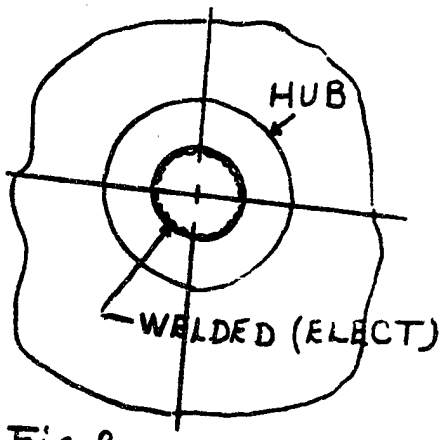


Fig 2.

3. A two-axle freight car standing on the assembly line was lifted by means of pneumatic jacks. The wheel and axle sets were rolled out and sent to the wheel-axle shop. This was to avoid mixing up axle bearings; the same bearings had to be used on the same axle. The wheel and axle sets could be interchanged, but the thickness of the rim of the wheels had to be the same (Fig 3).

Fig 3.

If the freight car were equipped with brakes, the brake triangle had to be changed accordingly and the brakes re-located (Fig 4).

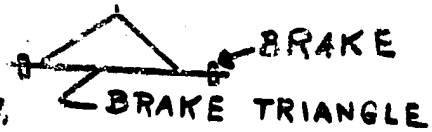
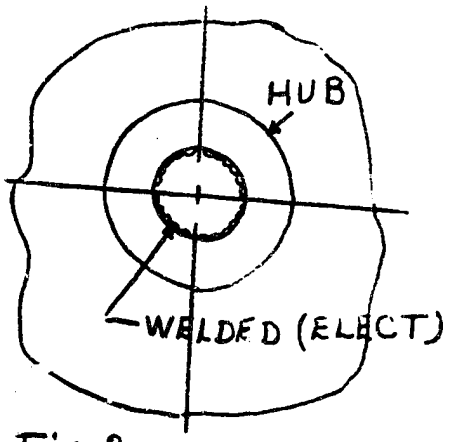


Fig 4.

4. The number of men required to perform this operation depended upon the degree of skill available and the technical equipment on hand.

5. The length of time required to change width for narrow or broad gauge tracks also depended on the technical equipment on hand. It was usually between 100 and 150 hours.

6. There was [redacted] to the number of times the same wheel and axle set could be regraced [redacted] hub could be welded. Sometimes the pressure between the axle and the hu[redacted] great and the surface of the axle was scratched. Such axles were turne[redacted] a lathe and used on lighter weight cars. (The European two-axle cars r[redacted] capacity from [redacted] to 20 tons.) Differences in capacity were determined [redacted] diameters of the axles.



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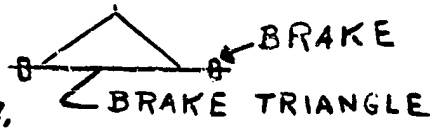

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5. The length of time required to change width for narrow or broad gauge tracks also depended on the technical equipment on hand. It was usually between 100 and 150 hours.

6. There was no limit to the number of times the same wheel and axle set could be regauged because the hub could be welded. Sometimes the pressure between the axle and the hub was too great and the surface of the axle was scratched. Such axles were turned down on a lathe and used on lighter weight cars. (The European two-axle cars ranged in capacity from 10 to 20 tons.) Differences in capacity were determined by the diameters of the axles.

7. The adjustable axle [redacted] may still be in use on Soviet railways. There is no way [redacted] to determine whether adjustable axles were discarded or what type of substitute is now in use. The method described above was in use [redacted] in addition to the use of the adjustable axle [redacted]

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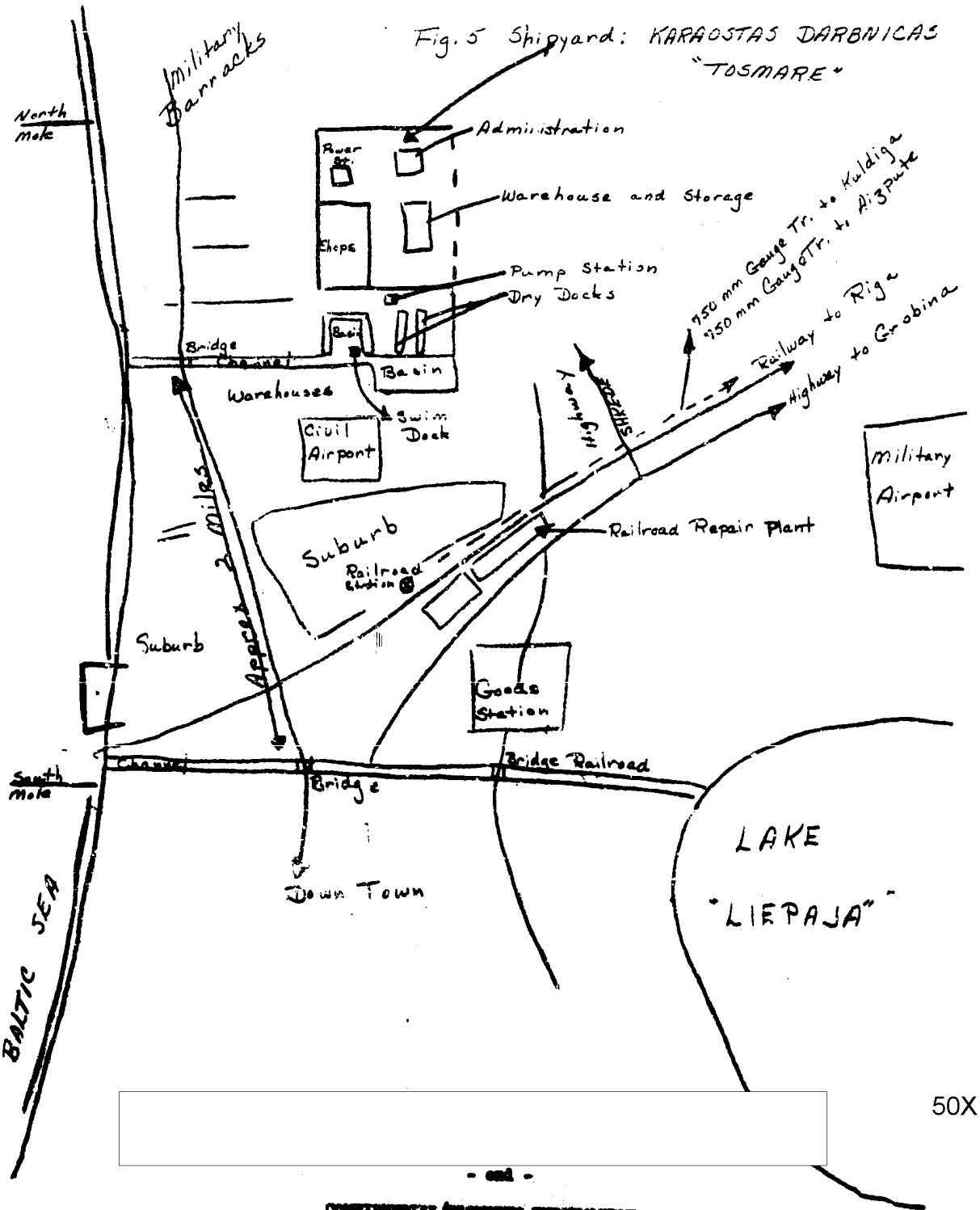
8. The sketch below shows the Tasmare Ship Repair Yards in Liepaja. The sketch was drawn by hand and is not to scale (Fig 5).



[redacted]

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